

A Copernican Revolution in Science and Religion Towards a Third Millennium Spirituality: The Entangled State of God and Humanity

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Synopsis

As the title, *The Entangled State of God and Humanity* suggests, this lecture dispenses with the pre-Copernican, patriarchal, anthropomorphic image of God while presenting a case for a third millennium theology illuminated by insights from archetypal depth psychology, quantum physics, neuroscience and evolutionary biology. It attempts to smash the conceptual barriers between science and religion and in so doing, it may contribute to a Copernican revolution which reconciles both perspectives which have been apparently irreconcilable opposites since the sixteenth century. The published work of C.G. Jung, Wolfgang Pauli, David Bohm and Teilhard de Chardin outline a process whereby matter evolves in increasing complexity from sub-atomic particles to the human brain and the emergence of a reflective consciousness leading to a noosphere evolving towards an Omega point. The noosphere is the envelope of consciousness and meaning superimposed upon the biosphere a concept central to the evolutionary thought of visionary Jesuit palaeontologist Pierre Teilhard de Chardin (*The Phenomenon of Man*).

His central ideas, like those of Jung with his archetypes, in particular that of the Self, provide intimations of a numinous principle implicit in cosmology and the discovery that in and through humanity, evolution becomes not only conscious of itself but also directed and purposive. Although in Jung's conception it was a "late-born offspring of the unconscious soul", consciousness has become the mirror which the universe has evolved to reflect upon itself and in which its very existence is revealed. Without consciousness, the universe would not know itself. The implication for process theology is that God and humanity are in an entangled state so that the evolution of God cannot be separated from that of humankind.

A process (Incarnational) theology inseminated by the theory of evolution is one in which humankind completes the individuation of God towards the wholeness represented for instance in cosmic mandala symbols (Jung, *Collected Works*, vol. 11). Jung believed that God needs humankind to become conscious, whole and complete, a thesis explored in my book *The Individuation of God: Integrating Science and Religion* (Wilmette, IL: Chiron Publications 2012). This process theology like that implicit in the work of Teilhard de Chardin, is panentheistic so that God is immanent in nature though not identical with it (Atmanspacher: 2014: 284).

The Demise of Dogmatic Physicalism

The doctrine of physicalism has eliminated psyche from the traditional scientific understanding of cosmology and evolution including that of humankind. In our species the universe has evolved reflective consciousness as the mirror in which its very existence is revealed in the form of mathematical laws. According to the physicalist dogma about nature

mental states and consciousness itself are regarded as causally inefficacious, epiphenomenal or illusory by-products of neural processes.

Hence, concepts of extended mind or non-local consciousness are ruled out of existence in a classical, mechanistic, scientific worldview as are any theological or metaphysical notions of reality. However, the dogma of physicalism which has acquired the status of an absolute truth for most contemporary neuroscientists confronts many Kuhnian anomalies including psychosomatic phenomena and such numinous experiences as NDEs.

These are being subject to rigorous, ongoing empirical research in prospective studies, for instance in the work of Pim van Lommel in the Netherlands, Sam Parnia and Peter Fenwick in the United Kingdom. Perhaps there is naivety implicit in the notion of one-to-one neural correlates providing a sufficient explanation of complex mental processes and symbolic consciousness as an emergent evolutionary reality without which science itself would never have come into being.

In fact reductionist physicalism (materialism) is itself a metaphysical doctrine about what nature must be rather than being an explanation of it. This is ideology masquerading as science. As Atmanspacher (2014: 246) has pointed out, “The lack of success of physicalist approaches to one of the deepest questions in the history of humankind, the nature of mind-matter correlations, entails the search for alternative approaches”.

Perhaps the most compelling alternative to physicalism which permits scientific research into mental and numinous aspects of reality is dual-aspect monism with its roots in the philosophies of Spinoza and Whitehead. Dual-aspect monism regards mind and matter as two basic and irreducible aspects of an underlying neutral domain. So that mind is as much a fundamental dimension of reality as matter.

In this lecture I shall be exploring two variants of dual-aspect monism which are relevant to theology. The first is the Jung and Pauli notion of the archetypes as cosmic ordering and regulating principles. The second is the somewhat analogous position of Bohm, Hiley and Pylkkänen on the role of active quantum information in both extended mind and consciousness. Only if the mental is as much a fundamental feature of the universe as matter can theology be redeemed from its excommunication by the dogma of physicalism which seems to be the “religion” of the neo-atheism of Richard Dawkins and his apostles.

Variants of Dual-Aspect Monism

Physicist Wolfgang Pauli and psychiatrist Carl Gustav Jung both played a key role in the foundation of depth psychology and they collaborated between 1932 and 1958. Pauli wanted to enrich Jung’s archetypal psychology with insights from quantum physics in a shared search for a worldview more compatible with the evolving body of scientific knowledge than what philosophers had already proposed. In particular, both Jung and Pauli believed that the 400 year schism between science and religion needed to be healed.

To that end the materialist philosophy of mind proposed by Bertrand Russell, his pupil Ludwig Wittgenstein and other positivist thinkers, including the once elite Vienna Circle of philosophers, needed to be replaced with a dual-aspect position in which mind was as much a fundamental dimension of reality as matter. Thus restoring a lost wholeness to human understanding of the evolving cosmos.

The restoration of psyche would have profound implications for a panentheistic theology such as that of Teilhard de Chardin whose work was influenced by the philosophy of Baruch de Spinoza and the process philosophy of Whitehead.

Pauli and Jung were especially concerned with the so-called “psychophysical problem” which they believed had not been resolved by a one-sided and reductionist physicalist (materialist) doctrine of nature from which the mental had been exorcised by a priori definition of what constituted scientific knowledge. The question became that of how the interface between the mental and the physical is to be understood and on what concept of reality it could be grounded. The framework of the Jung/Pauli concept of dual-aspect monism emerged from Pauli’s knowledge of the principles of quantum physics.

Atmanspacher (2014:252) refers to Pauli’s suggestion that mind and matter stand in a relationship of complementarity. In Pauli’s words, “It would be most satisfactory if physis and psyche could be conceived as complementary aspects of the same reality”. This was not simply a superficial or merely verbal and empty solution to a problem which Pauli believed to be one of the greatest challenges confronting humanity because of the menacing shadow of a one-sided mechanistic materialist worldview.

According to Pauli, repressed psyche could return with a vengeance in the form of thermonuclear explosions.

As Atmanspacher has pointed out, “two or more descriptions of a phenomenon are complementary if they mutually exclude one another and yet are together necessary to describe the phenomenon exhaustively” (P. 252).

In conjunction with complementarity, Pauli regarded the analogy from quantum holism or quantum non-locality as fitting perfectly with Jung’s concept of a basic reality, that of the *unus mundus*. Starting with this holistic, psychophysically neutral reality aspects such as the mental and material are generated by decomposition of the whole so that reduction of the parts to the whole is impossible. As Atmanspacher put it,

“In dual-aspect monism according to Jung and Pauli, from the mental, the neutral reality is approached via Jung’s collective unconscious while from the material it is approached via quantum non-locality” (Atmanspacher, 2014: 253). This is itself an example of the complementarity of mind and matter expressed in the terms “collective unconscious” and “quantum non-locality”.

Dual Aspect Monism of Bohm

Physicist David Bohm formulated a dual-aspect notion of the mind and matter relationship almost synchronously with the proposal being developed by Jung and Pauli. According to Bohm, mental and physical states emerge by explication or unfoldment from an undivided, holistic, implicate enfolded order.

Bohm referred to this as the holomovement because it is not static but rather dynamic as in Whitehead's process philosophy. Atmanspacher notes the implication "that Bohm's dual aspect monism is not only holistic as in the Jung-Pauli formulation, it is also fundamentally based on process rather than substance" (2014:256).

Psychophysical correlations are determined by what Bohm refers to as active information which acts as a link or bridge between mind and matter as two inseparable aspects of reality. By bringing "the implicate into form" Bohm's active information is analogous to the cosmic, archetypal ordering and regulating principles in the Jung-Pauli variant of dual-aspect monism. "Dual-aspect thinking suggests that mind is a fundamental feature of reality which exists throughout the universe" (P.258).

According to Bohm and his colleagues Hiley and Pylkkänen, even the quantum level can be thought to have via active information a primitive mind-like quality although it obviously has no consciousness. The paradigm shift from a physicalist to a dual aspect monist perspective on the psychophysical problem and ontology has profound implications for a panentheistic theology like that of Teilhard.

Theology and the Psychophysical Problem

Unconscious Archetypes as Timeless, Cosmic Ordering and Regulating Principles and the implicate order of Bohm suggest concepts of mind which transcend the individual in a transpersonal sense. This implies dimensions of mind and of the self not strangled by the spatiotemporal hold and a numinous dimension implicit in the evolutionary process in place of an interventionist God external to the cosmos like the patriarchal figure depicted in Michelangelo's Sistene Chapel fresco.

So that God and humanity are in an entangled state resulting in a process (panentheistic) theology exemplified by Teilhard de Chardin in which the Numinous is both immanent in nature and transcendent (Jung's God-Archetype). In contrast conservative (fundamentalist) theologies remain suspicious of science and mysticism while casting a Jungian Shadow over humanity while perpetuating the schism between science and religion which has existed since the 17th Century.

The late high energy physicist Kalervo Laurikainen, has commented upon the contradictions Newton noticed between the idea of absolute causality and religious concepts. He wrote, "Fierz has in particular presented the idea that it was the awareness of this contradiction which may have been the reason for the depression which Newton underwent sometime after

the publication of the Principia According to Pauli it was in just this regard that the 17th century went too far....

Belief in the idea that God had created the world as able to be perfectly described mathematically, produced as an outcome a world picture in which God no longer has any place” (Laurikainen, 1988: 47-49). The inference was that reality could be completely described in materialistic terms so that psyche or spirit was exorcised from science. The role of the human observer could be ignored and banished from science at least until the co-emergence of quantum physics and archetypal, depth psychology!

Complementarity of Science and Religion

Physicist Wolfgang Pauli and Depth Psychologist Carl Jung collaborated 1932-1958, coining the term **personal equation** to refer to the role of the observer. In radical behaviourism, psyche was being banished from psychology, even as it was being re-discovered in quantum physics as the personal equation of the observer. Whereas in Pauli’s U-field, the unconscious is the psychological counterpart of the field concept in quantum physics. Consciousness is “a late –born offspring of the unconscious soul” (von Meyenn K, *Mind & Matter* 2011: 9, 10-11). While understanding the unconscious archetypes as verifiable in both our observations of the external phenomenal world expressed mathematically in empirical laws and in the structure of the internal world of the psyche.

Similarly, both mind and matter are complementary aspects of an original, primordial, unitary and timeless reality (unus mundus) which transcends spacetime (Atmanspacher, 2014). This reality is analogous to Bohm’s “implicate order” of the cosmos where active quantum information forms a bridge between mind and matter, as do archetypes for Jung and Pauli. Metaphysics understood in the sense of Jung and Pauli “refers to a reality more substantial....than everything that physics and psychology would characterise as real” (Atmanspacher H, *Mind & Matter* 2011: 9, 3-4).

With respect to the term “personal equation,” according to Pauli and as noted by the late high energy physicist Kalervo Laurikainen . . . “the most important lesson that quantum mechanics has given us is that we must always include the observer in our picture of the world. This was the original spirit in the Copenhagen philosophy and, exactly in this point Pauli represents this philosophy in the most consistent way” (1988: 163).

Pauli regarded this anomaly as troublesome particularly because scientific theories were “products of the psyche” with a great deal of unconscious preparation, as if in a secret laboratory or beneath a veil. Pauli noted in his correspondence that in quantum experiments the consciousness of the observer could no longer be ignored and, probably due to his collaboration with Carl Jung, he concluded that repression of the psyche after the seventeenth century had been one-sided and dangerous, creating “a materialistic culture in which the influence of religion has continuously diminished and of which a very strict separation between science and religion is characteristic.” (Ibid, 1988: xv)

Pauli shared Jung's notion of the reality of an unconscious besides external reality which he expressed as a U-field. In a letter to physicist Marcus Fierz, Pauli wrote: "Regarding the psychological analogy of the physical field concept, it seems to me to lie in the notion of the unconscious....For the unconscious posits a reality like the physical field....an invisible reality mediating a connection between spatially and maybe temporally distant visible phenomena. This seems to me to express a deeper similarity than only a superficial analogy" (von Meyenn K, *Mind & Matter* 2011: 9, 10)

With regard to **complementarity** coined by Niels Bohr, Pauli wrote, "real pairs of opposites like particle versus wave or position versus momentum or energy versus time exist in physics.... One member of the pair can never be eliminated in favour of the other but both are taken over in a new type of physical reality which expresses properly the complementary character of the contrast" (von Meyenn, 2011: 18) A similar notion of complementarity would characterise the relationship between mind and matter, psychology and physics, science and religion.

In his final work, "*The Undivided Universe*" (2002: 386), physicist David Bohm expressed the insight that "active information served as the bridge between the mental and the physical". Bohm's concept of active information as the bridge between mind and matter is remarkably similar and perhaps synchronous with the Jung/Pauli notion of the unconscious archetypes as cosmic ordering and regulating principles.

These insights provide the basis for the complementarity of mind and matter. Bohm, clearly adopted a dual aspect monist notion of the mental and physical being complementary though irreducible to one another, while rejecting reductionism of either an idealist or materialist nature. The conflation of emergent consciousness with extended mind leads to the error of panpsychism.

Extended Mind:Active Information and Archetypes

As noted by philosopher Paavo Pylkkänen (2014: 86-87), "with quantum physics the whole scheme of philosophical atomism is challenged and one is forced to consider some radically holistic basic principles". In Bohm and Hiley's ontological interpretation of quantum theory, electrons are guided by a new type of field containing active information and the way it acts is analogous to the way information acts in subjective human experience. "In the context of the implicate order, mind and matter are analogous to non-locally connected (entangled) quantum systems.

They ought to be seen as correlated projections from a common ontological multidimensional ground rather than as separate substances in causal interaction" (2014:87). Bohm postulated human participation in "a greater collective mind, in principle capable of going indefinitely beyond the human species as a whole" (2002: 386). By bringing the implicate into form, Bohm's active information is very much in accordance with the cosmic archetypal ordering principles in the Jung-Pauli system with its collective unconscious and quantum non-locality.

The mental and the material are generated by decomposition of an unfragmented whole, the *unus mundus* or one world (Atmanspacher, 2014: 252).

Furthermore, “Metaphysics taken seriously in the sense of Pauli and Jung refers to a kind of reality more substantial, more material as it were than everything that physics and psychology would characterize as real.” This form of extra-physical (metaphysical) reality was designated by a mode of cognition expressed through abstract symbols. Such a notion contrasts with the idea of metaphysical concepts as disreputable and to be passed over in silence because they were devoid of any empirical scientific status in a classical, physicalist, mechanistic view of science. As already noted, physicalism has been the dominant paradigm in the philosophy of mind, cognitive neuroscience and consciousness studies.

Mind from the Perspectives of Time and Eternity

The Jung/Pauli notion of unconscious archetypes implies influences independent of space and time coordinates and timeless dimensions of mind and of the Self. A dual aspect position on mind rejects neural reductionism (Turnbull & Solms, 2007) while active quantum information bridges mind and matter (Hiley & Pylkkänen, *Mind & Matter* 2005: 3, 7-27) as do archetypes as cosmic ordering and regulating principles.

Archetypal symbols indicate an objective order of the cosmos of which humanity is part but which also transcends humanity (Atmanspacher H, *Mind & Matter*, 2011: 9, 4). Jungian analysis is therefore a contemplative spiritual practice as well as a form of psychotherapy so that ego-consciousness experiences a connection between time and eternity, the personal and universal elements of the psyche (Stein, 1986: 175). A remark by Erwin Schrödinger, “What we in our minds construct cannot have the power to annihilate mind” (2007, p. 152) could be construed as a succinct summary of these ideas.

In a letter to physicist Marcus Fierz, Pauli states: “What I have in mind concerning such a new idea of reality is—in provisional terms—the idea of the reality of the symbol. On the one hand a symbol is a product of human effort, on the other hand it indicates an objective order in the cosmos of which humans are only part”. For Jung symbols represent archetypes which possess their own extraphysical or metaphysical reality. Bohm like Teilhard and Jung proposed human participation in “a greater collective mind capable of going indefinitely beyond the human species as a whole”. Such collective mind is analogous to Jung’s view of the unconscious psyche and the archetypes.

In another non-reductionist perspective on mind, Hiley and Pylkkänen have suggested the existence of a mind-field, a term used by Nobel laureate and neuroscientist John Eccles, as an emergent property in biological systems which have reached a certain level of organisation and complexity. The mind field with its mental and physical aspects as complementary to one another is also situated within a broader context of field theories of consciousness. They wrote: “Mind regarded as taking place at a higher level of organisation with both a mental aspect and a physical aspect goes beyond processes studied in traditional neuroscience but

can nevertheless play a role in the physical world. Through its effect, for example upon exocytosis Mind is understood as a new level containing active information which affects the quantum potential which in turn affects the physical processes in the brain.” (Hiley and Pylkkänen, 2005: 23).

The factor beyond the notion of quantum effects triggering neural processes in the brain is that the active information contained in Eccles’s mind field can in turn affect the quantum potential while not proposing that mind can be reduced to the quantum level. Mind can be viewed as a relatively autonomous though higher level of active information in emergent evolution acting without violating the conservation of energy law (2005:7). This view is consistent with those of Pauli with his U-field and Jungian archetypes and with Teilhard de Chardin with his concept of the noosphere which represents a transcendence of biological by a new psychosocial or cultural evolution. As the mirror in which the existence of the universe is revealed to itself, consciousness is an emergent evolutionary phenomenon.

In humankind evolution has become not only conscious of itself but directed. Evolutionary biologist Julian Huxley glowingly endorsed Teilhard’s thought in his introduction to Teilhard’s magnum opus *The Phenomenon of Man*. Huxley remarked that human beings have become business managers for cosmic evolution and that mind-like properties must be present throughout the universe. Compared to Richard Dawkin’s allusion to immunologist Peter Medawar’s attribution of “self-deception” to Teilhard, Huxley wrote, that Teilhard “has both clarified and unified our vision of reality. The religiously minded can no longer turn their backs on the material world. Nor can the materialistically minded deny importance to spiritual experience and religious feeling” Huxley described Teilhard as “a very remarkable man, at the same time a Jesuit father and a distinguished palaeontologist (who) has effected a threefold synthesis of the material world with the world of mind and spirit” (1959:26). Bohm suggested that even the quantum level can be thought to have via active information, a primitive mind like quality although it obviously has no consciousness (Hiley and Pylkkänen, 2005:22).

Humankind Completing God

Human beings are actors and participants in evolution (“natura naturans”) while the concept of “adaptive” (directed) mutation complements Darwinian natural selection (McFadden J & Al-Khalili J, *Biosystems* 1999: 50, 3, 203-211). Teilhard de Chardin’s evolving noosphere of collective consciousness (*Teilhard Studies* 66, 2013) suggests that humankind is completing the evolution of God towards a divine focus of mind (Christ-Omega point) introducing finality and purpose to evolution.

Complementing the Jung/Pauli notion of the unconscious archetypes as timeless, cosmic ordering and regulating principles. According to Jungian analyst Michael Fordham in his book *Explorations into the Self* The study of the collective unconscious must “Reveal the nature of God As far as it can be understood by human beings” (Fordham, 1985 p. 184). The numinous Self archetype corresponds to the unconscious God image (imago-Dei). In his

essays on psychology and religion, Jung regarded Christ and the Buddha as numinous symbols of the Self, commenting that the historic Christ had been eclipsed by centuries of collective archetypal projection and expectation.

Mc Fadden and Al-Khalili have challenged the orthodox Neo Darwinian dogma that mutations occur only *randomly* by experimentally demonstrating the phenomenon of adaptive mutation of micro-organisms to environmental changes. The claim made is that living cells can form unique quantum measuring devices that probe internal quantum processes occurring in their interior. “Living cells could act as biological quantum computers able to simultaneously explore multiple mutational states (in superposition) and collapse towards those states which provide the greatest advantage” *Biosystems*, (1999), 50, (3):203-211). With regard to the discovery of quantum computing physicist Koichiro Matsuno asked, “who got there first, biosystems or Richard Feynman”? *Biosystems*, (2000), 55:39-46. Nobel laureate in physics Erwin Schrödinger could be regarded as father to the idea of adaptive mutation in living cells, having made his famous statement, “quantum fluctuations produce mutations” in the 1944 edition of his book “*What is Life? With Mind and Matter and Autobiographical Sketches?*” This idea implies an internalist-ecological perspective on evolution with rudimentary mind understood as active quantum information, though devoid of emergent consciousness.

A similar quantum mechanical model may help to account for the emergence of multiple drug resistant strains of HIV. Todd (2008) has reviewed research indicating that HIV is one of the fastest evolving of all organisms. One of the most disturbing events in attempts to counter HIV infection had been the emergence of mutations that conferred resistance to all 20 of the FDA approved antiretroviral drugs then being used clinically (pp 193-194).

Regarding purposiveness, Pauli wrote the following to physicist Niels Bohr: “In discussions with biologists I met with difficulties when they apply the concept of natural selection in a rather wide field without being able to estimate the probability of the occurrence in an empirically given time, of just those events which have been important for biological evolution. Treating the empirical time scale of the evolution theoretically as infinity, they have an easy game to avoid the concept of purposiveness while they pretend to stay in this way completely scientific and rational” (Atmanspacher and Primas, 2006: 27-28). Empirical research entails estimating the probability of events within finite timeframes to permit the formulation of predictions derived from theory.

Pauli noted that this evasion enabled Neo-Darwinian biologists to attribute a virtually miraculous function to “chance”. This sleight of hand permits denial of any inconvenient numinous dimension in cosmology or in an evolution which in and through humanity has become conscious of itself and directed as Teilhard proposed.

The Hymn of the Universe

The Incarnation of God is characterised by conscious participation in the future of evolution. One manifesting a mind and cosmic order transcending humanity collectively and contingent upon a global sense of identification with the species. This would entail a holistic vision, itself “mystical” of the interconnectedness of all beings resulting in a spiritual awakening whereby lost wholeness and sacredness are restored to the earth.

This vision would involve the Jung/Pauli archetype of the “conjunctio oppositorum” or union of complementary opposites such as mind and matter, science and religion (von Meyenn, 2011: 18). According to Schrödinger, “physical theory, strongly suggests the indestructibility of mind by time” (2007:52) so that the hymn of the universe need not be a requiem!

With regard to the archetypal, symbolic reality with which psyche and physis confront us, as I have noted, Pauli proposed that Bohr’s notion of complementarity would characterise the relationship between mind and matter, science and religion in a manner analogous to the wave particle and energy time dualities already discussed in physics. This dual aspect monist understanding of reality eliminates both materialist and idealist forms of reductionism while avoiding the error of panpsychism which results from the conflation of extended mind with emergent consciousness. The unus mundus of Pauli and Jung is analogous to the implicate order of David Bohm and his colleagues. (von Meyenn , K, *Mind & Matter* 2011: 18)

De-constructing the Religion of Metaphysical Materialism

The archetypes transcend the finiteness of individual and collective humanity so that the eternal is present in a perennial now, that of the unconscious psyche which is the origin of mathematical insights and empirical laws eg. the Dirac equation, linking the quantum mechanical and special relativity theories in physics.

Unconscious dimensions of mind and of the Self are not bound by space and time in Jungian thought. Furthermore, Psychoanalysis permits robust and useful scientific predictions derived from its theoretical premises as demonstrated in some of my own empirical research (Todd, 1978; 2008).

Neuropsychanalysis rejects neural reductionism and materialism (Turnbull & Solms, 2007). This emerging field of research into the neural correlates of the phenomenology of unconscious mental mechanisms and affective processes has adopted the epistemology of dual-aspect monism. It specifically rejects neural reductionism. Liberation from materialism means freedom to embrace a numinous dimension of evolution and deconstructing the religion of metaphysical materialism so that the hymn of the universe can be a triumphant *Te Deum*!

The Nature of Mathematical Reality

Regarding the origins of the implicate order, David Bohm’s colleague, theoretical physicist Basil Hiley (He received the Majorana Prize "Best person in physics" in 2012) has

commented in an interview with Taher Gozel (2010), “**mathematics is not about material processes unfolding in space and time. Mathematics is about thought, not the content of thought but the form in which we can hold the content of thought which is about becoming not being. This is where the implicate order came from**”. The analogy with the Jung-Pauli notion of the archetypes as cosmic ordering and regulating principles represented in the internal phenomenal world and in the mathematical laws of nature seems to be particularly striking in Hiley’s concept of mathematics as the form in which the content of thought can be held.

It is remarkably similar to a remark by neuroscientist Karl Pribram that, “mathematics is a psychological process describing relationships organising matter” (2004:14). Pribram, best known for his work on the holographic brain, also rejects the notion that consciousness is an epiphenomenal by-product of brain processes.

Theology and Dual Aspect Monism

According to Atmanspacher (2014) it is natural for dual-aspect monists to nurture metaphysical conceptions of the underlying domain. He points out that “there is a long tradition of interpreting Spinoza as a panentheist where God is immanent in nature but not identical with it” (2014, p284). Unlike pantheism, panentheism posits that God is immanent in nature and transcending of it, so that the universe and the divine are not ontologically equivalent.

These ideas would suggest a paradigm shift in both science and religion while helping to heal the schism which has existed for 400 years. To this end, both Pauli and Jung referred to the common ontological foundation from which both mind and matter emerge in a dual-aspect concept of reality as the *unus mundus* which is analogous to the implicate order of David Bohm (Todd, 2012:155). According to Atmanspacher both approaches have a clearly metaphysical flavor (2014:284).

Jung envisioned an evolution of the *imago Dei* through historic time. In *Answer to Job* he wrote, “The future indwelling of the Holy Ghost in man amounts to a continuing incarnation of God. Christ as the begotten son of God and pre-existing mediator is a first born and a divine paradigm which will be followed by further incarnations of the Holy Ghost in the empirical man” (1958:401). Christ was to be understood as a symbol of numinous Self archetype as was the figure of the Buddha.

Through ongoing incarnation in humanity, God becomes conscious and is completed by humankind in directed evolution. Like the fourteenth century mystic Meister Eckhart, Jung believed in a continuing incarnational process rather than a singular historical event. **The incarnation is part of evolution and a continuing process as the term “divine paradigm” implies. These notions would imply a panentheistic theology replacing the archaic concept of an anthropomorphic and interventionist God rendered superfluous by Newton.**

The Supernaturalness of Humanity?

The evolutionary process of completing God dispels a myth in which God remains a remote, supernatural, interventionist “deus ex machina” rather than representing the transcendence of which humanity is capable. As Fordham (1985:184) expressed it, discovering the “supernaturalness of Man” the evolutionary theological doctrine of the Incarnation is that God became fully human.

In depth psychological terms the corollary is that humanity becomes conscious of the implicate divinity which is both immanent and transcendent facilitating the divinisation or resacralization of the world in which Jung, Pauli and Teilhard de Chardin were intuitive prophets!

The anthromorphic image of God which Richard Dawkins attempted to annihilate in his book “*The God Delusion*” had already been rendered superfluous by the physics of Isaac Newton and irrelevant by the evolutionary theory of Charles Darwin. However, the transformations in the God-image which I am elucidating expose such Neo-atheist positions as vacuous, straw-man arguments which have nothing whatsoever to do with contemporary understandings of the numinous in depth psychology and an incarnational (process), panentheistic Theology illuminated by science. The implication is that the schism between science and religion can be overcome. This would constitute a new Copernican revolution in science and religion in which psyche (mind) is a fundamental feature of the universe as Pauli and Bohm, for instance have suggested.

The Future of God

In *Psychology and Religion*, Jung wrote, “Strictly speaking, the God Image does not coincide with the unconscious as such but with a special content of it, namely the archetype of the Self from which we can no longer distinguish the God Image empirically” (1958: 469). His delight with the doctrine of the Assumption proclaimed by Pius XII in 1950, was that it symbolically represented the integration of the archetypal feminine “anima” with the masculine Trinity in traditional Christianity (1958: 458). “The image of God as quaternity in conjunction with the concept of human wholeness would function in this transformed religious tradition as the master symbol” (Stein, 1986:186-187). An evolution of God which Jung believed would take about 600 years.

As Murray Stein commented in his book “*Jung’s Treatment of Christianity*” the doctrine and image of God would evolve in a future universal rather than tribal religion. He wrote, “In the transformed Christian tradition as foreseen by Jung, this would be expressed in a symbol that represented God as a quaternity and a unio oppositorum. As the Yahweh of Judaism was transformed into the Trinity of traditional Christianity so the Christian Trinity of Father, Son and Holy Ghost would become a quaternity in the next stage of religious evolution (God’s Individuation).

The image of God as quaternity in conjunction with the concept of human wholeness would function in this transformed religious tradition as the master symbol” (1986:186-187).

Conclusions

In conclusion, these reflections on mind as active information and archetypes as cosmic ordering and regulating principles not only represent a position different from the religion of metaphysical materialism. They also refute the argument that God is a delusion as proposed by Richard Dawkins and the Neo-atheists. God and humanity are in a metaphorical entangled state so that the individuation or evolution of both cannot be separated and are dependent upon one another for completion. Humanity not only participates in a numinous dimension but also in co-creative divinisation by directing the future of the noosphere and the biosphere culminating in an Omega point or divine focus of mind. One in which science and religion are integrated and co-exist in a relationship of complementarity.

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